

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1, 4-13, 60-78 are pending in the application, with claims 1 and 60 being the independent claims. Claim 79 is sought to be cancelled without prejudice to or disclaimer of the subject matter therein. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Numbering of Claims

Applicants' representative thanks the Examiner for correction of misnumbered claims 14-33 presented in Applicants' Supplemental Amendment and Reply Under 37 C.F.R. § 1.111 submitted December 20, 2002. Previously misnumbered claims 14-33 are herein referred to as claims 60-79 consistent with the Examiner's correction.

Claim Rejections Under 35 U.S.C. § 102(b)

The Examiner rejected claims 1, 4-13, 60-71 and 79 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,082,727 ("Nagata *et al.*"). According to the Examiner:

For claims 1 and 79, Nagata does not specifically teach the product of the silane and biopolymer is capable of binding directly to the surface of the substrate by covalent attachment of the silane to the substrate. However, the claims state that this reaction product should "be capable of" direct-covalent bonding to a substrate. This limitation is fulfilled due to the inherent properties of the reaction product, where the silane portion contains alkoxy groups. These alkoxy groups are

capable of reacting with a hydroxyl-containing substrate to form a covalent bond. . . . Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present.

* * *

For claim 60, applicant uses the transitional phrase "consisting essentially of" in the claim. Although Nagata *et al.* uses an additional organosilicone resin in the patent, to which the product of the silane and biopolymer is bound, the use of "consisting essentially of" does not exclude such an ingredient. There is no evidence that the addition of the organosilicone resin materially affects the basic and novel characteristics of the claimed composition, which in this case is the thromboresistant properties of the resulting treated surface. The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention.

Office Action of April 1, 2003 at pages 3-4 (underlining in original).

Inherent Anticipation

Applicants herein amend claims 1 and 60 by deleting the recitation that the reaction product "be capable of" direct covalent bonding the substrate. Amended claims 1 and 60 now recite and require that the composition "is directly coated onto a surface of a substrate by covalent attachment of a silicon atom to said substrate" (claim 1) and "is directly bonded to a surface of a substrate" (claim 60). These amendments, removing the limitation reciting what the claimed composition is "capable of" and replacing it with a limitation reciting what the claimed composition "is", are believed to overcome the Examiner's inherent anticipation rejection under 35 U.S.C. § 102(b) in view of Nagata *et al.*

Nagata *et al.* does not teach a composition as recited in amended claims 1 and 60 that "is" directly bonded to the surface of a substrate. Rather, Nagat *et al.* teaches a base layer or primer between the substrate and the silane-biopolymer.

"Consisting Essentially Of"

The "basic and novel characteristic(s)" of the invention recited in claim 60, as amended herein, is not limited to "the thromboresistant properties of the resulting treated surface" as stated by the Examiner. Rather, a basic and novel characteristic of the invention of claim 60 is the direct covalent bonding of the silane to the substrate, and the addition of a base or primer layer as described in Nagata *et al.* clearly materially affects this characteristic. As stated in Applicants' Amendment and Reply submitted December 20, 2002, the use of the transitional phrase "consisting essentially of" is "intended to clarify that the claimed coating composition does not require a base or primer layer in order to adhere to the surface of the substrate." *See Applicants' Amendment and Reply Under 37 C.F.R. § 1.111 at page 10.*

In light of Applicants' amendments to claims 1 and 60, reconsideration and withdrawal of the Examiner's anticipation rejection under 35 U.S.C. § 102(b) in view of Nagata *et al.* is respectfully requested.

Dependent Claims

Claim 79 is canceled herein. Remaining dependent claims 4-13, 61-78 are believed allowable for at least the same reasons discussed above for claims 1 and 60.

Claim Rejections Under 35 U.S.C. § 102(e)

The Examiner rejected claims 1 and 60 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,0448,695 ("Bradley *et al.*"). According to the Examiner:

Bradley teaches that an epoxy-containing silane is reacted with a biopolymer (DNA) and that subsequently this product

is affixed to an underivatized glass surface. Bradley does not teach any other components added to this product in the Example.

Office Action of April 1, 2003 at page 5.

Applicants amend claims 1 and 60 herein to recite that the claimed composition excludes biopolymers which are nucleic acids as described in Bradley *et al.* In light of Applicants' amendments to claims 1 and 60, reconsideration and withdrawal of the Examiner's anticipation rejection under 35 U.S.C. § 102(e) in view of Bradley *et al.* is respectfully requested.

Allowable Subject Matter

Applicants gratefully acknowledge the Examiner's indication of allowable subject matter recited in claims 72, 73 and 75-78. These claims are now believed to depend from an allowable base claim and reconsideration and withdrawal of the Examiner's objection is respectfully requested.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite

prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

----- Prompt and favorable consideration of this Amendment and Reply is respectfully requested. -----

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Vincent L. Capuano
Attorney for Applicants
Registration No. 42,385

Date: 8/1/03

1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934
(202) 371-2600